

February Update of the Stress Test Peer Review

Background

Following the severe accidents which started in the Fukushima Dai-ichi NPP on 11 March 2011, the European Council of 24/25 March 2011 requested that the safety of all EU nuclear plants be reviewed on the basis of a comprehensive and transparent risk and safety assessment. The Council chose the term “stress tests”; a term that is usually used for heart patients and financial institutions. This was the first time that such a multilateral exercise covering over 140 reactors in all EU countries operating nuclear power plants was considered. The Council invited the European Nuclear Safety Regulators Group (ENSREG) and the European Commission to develop the scope and modalities for the stress tests, making full use of available expertise, notably from the Western European Nuclear Regulators’ Association (WENRA).

Defining the scope and modalities for stress tests was no easy task. WENRA drafted preliminary stress test specifications in April. It took until 24 May 2011 to reach a full consensus of ENSREG and the European Commission. A procedure on peer reviews of stress tests as well as a working paper on the transparency aspects of EU stress tests were agreed upon at the 11 October 2011 ENSREG meeting.

The stress tests and peer review focus on three topics which are consistent with the preliminary lessons learned from the Fukushima disaster, as reported by the IAEA mission performed from 24 May to 2 June 2011. Initiating events, including earthquake, tsunami and extreme weather, the loss of safety functions and severe accident management were the three areas that needed immediate attention. The stress tests and peer review assess these topics in a three step process. The first step requires the operators to perform an assessment following the ENSREG specifications. The second step is for the national regulators to perform an independent review of the operators’ assessments. The last step is for all European countries to perform a peer review based on national reports submitted by regulators.

A very aggressive time line was established. The operators submitted their final reports on 15 September 2011 and the regulators submitted their final national reports on 31 December 2011. The objective of the peer review is to check that no important problem has been overlooked and to identify strong features, weaknesses and relevant proposals to increase plant robustness in light of the preliminary lessons learned from the Fukushima catastrophe. The 15 European Union countries with nuclear reactors have all submitted national reports to be reviewed, Ukraine and Switzerland voluntarily joined the process. All European Union countries were invited to participate in the peer review and many countries without nuclear power have sent experts who contribute to the review.

Transparency and an opportunity for public involvement have been objectives from the beginning. The National reports have been all made public. The final peer review reports will all be made public as well. The ENSREG and the Peer Review Board hosted a public meeting in January 2012 to inform the stakeholders and seek comments. Suggestions were accepted on the ENSREG website in January 2012 and were considered. Overall the public input has improved the stress test peer review process. There were public comments that noted between the public meeting in January and the publication of the final report in April there would be no information provided to the public. In response to this comment the Peer Review Board decided to post an update once a month on the ENSREG website in an effort to improve transparency and to better inform the public. This is the update for February.

February Update

Preparation for the peer review occurred in November and December 2011 and officially began on 1 January 2012. Three teams with experts from all over Europe were assembled. The peer review itself started with a desktop review of the national reports followed by plenary presentations from each country in each topic in Luxembourg. On Sunday 5 February all peer reviewers met in Luxembourg for the first coordination meeting. On 6 February the plenary sessions began with the first national regulator presentation. The topical review in Luxembourg ended on 17 February following general discussions and a group meeting.

The meetings in Luxembourg were an enormous undertaking. Organizing a review of all reactors in the participating countries is no simple task. There were over 60 reviewers from 24 European countries participating in the peer review. Nuclear experts from all over the world came to Luxembourg to observe and learn about the European Stress Test Peer Review. Each of the 17 countries with nuclear power plants made a presentation to each of the three topical teams. Over the next two weeks the work progressed. There were 51 plenary sessions conducted over 6 days. There were 6 additional days of report writing with the entire topical review teams. Reviewers worked two consecutive weeks including the weekends. After the topical review, there was a seminar in Luxembourg with the entire Board and country review team leaders to further refine the observations, perform a review in relation to the Fukushima lessons learned as documented in the IAEA mission report and the reports of the Japanese Government to the IAEA and define the process for final report writing.

Overall the topical review in Luxembourg was a success. An enormous amount of information was shared among the various reviewers. Each reviewer was given the opportunity to ask questions and each national regulator was given the opportunity to discuss the steps taken after Fukushima to improve safety. Discussions were lively and open and at the end everyone learned a lot about the actions taken. The topical review is just the first step in the peer review process. The work done in the topical review was in preparation for the second step in the peer review process. In March the Country reviews will begin. Each of the European countries with nuclear power will be visited by a team of expert peer reviewers where complementary discussions will be held and a visit of a plant will be performed. The reports will be further improved the reviewers will learn even more. The deliverables of the peer review will be a final report covering all Europe complemented by country reports as annexes.

The final report of the peer review will be submitted to ENSREG for approval on 25 April. The European Commission will present the results of the peer reviews in a final report for the European Council meeting of 28 – 29 June. The final report will be published publicly and the results will be presented and discussed at a second public meeting in Brussels in May.